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AUTHOR Righthand, Herbert

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ABSTRACT

The purpose of this study is to assess the program of distributive education in Connecticut high schools on the basis of the graduates status and perception of the program. Questionnaires were sent to graduates of three high school classes—1965, 1968, and 1971. Responses are tabulated. Information requested included: (1) sex and salaries; (2) racial and ethnic distribution; (3) evaluation of school training; (4) present job status; and (5) current employment and unemployment. One conclusion reached in the study was that while the students felt their education was excellent the distributive training program in high school does not meet the manpower needs of the State. Recommendations for improvement are made. (JD)

US DEPARTMENT OF HEALTH EDUCATION & MELSAGE NATIONAL INSTITUTE OF EDUCATION

A FOLLOW-UP STUDY

QF.

CONNECTICUT DISTRIBUTIVE EDUCATION CHADUATES

OF

THE CLASSES OF 1965-1968-1971

CONNECTICUT STATE DEPARTMENT OF EDUCATION

HARTFORD

CONNECTICUTS PART DEPARTMENT OF T DUCATION

A Follow-Up Survey
Of

CONNECTICUT SECONDARY DISTRIBUTIVE EDUCATION GRADUATES OF THE CLASSES OF 1965, 1968, and 1971

SUMMARY REPORT

PROGRAM EVALUATION

A follow-up survey of 2,132 high school distributive education graduates from Connecticut, conducted in 1974-1975, resulted in the delivery of 1,637 questionnaires and the return of 798 completed and usable questionnaires, or a 48.7% return of the delivered survey forms.

The findings indicated that 90.5% of the respondents were still residents of Connecticut and 37.0% of the employed worked in the State. Of those responding, 52.8% (42I) were male and 47.2% (377) were female.

The respondents showed satisfaction with the program in findings such as:

85.1% would take secondary distributive education again; 93.7% felt that the quality of distributive education was adequate or better, and;

94.6% thought the quality of classroom instruction was good or better.

In addition, there were other favorable comments. The value of DECA (Distributive Education Clubs of America) was judged to be "very valuable" by 33.6% of the respondents and "somewhat valuable" by 48.8%. Only 17.6% judged this part of the program "of little value" or "no value."

The ratings for training stations ranged from 23.5% "excellent" and 48% "good" to 21.7% as "adequate" and 6.8% as "inadequate." In their evaluation of school facilities and equipment, 77% thought that these vital components of vocational education were "good" or "excellent."

The average weekly salary earned by respondents in their present job (1975) was \$149.75. Seven graduates reported incomes of over \$500 per week, while three stated that they received less than \$50 per week. There was a significant difference in salaries between males and females, with males averaging \$175.90 per week and females, \$111.25 per week. Those employed in distribution or a closely related field tended to earn slightly more than those employed in unrelated occupational fields. As expected, the 1965 and 1968 graduates, ten and seven years after graduation, earned more than the recent 1971 graduates who had only four years in the job market.

PROGRAM COMPARISON

Since there were some graduates who had studied DE one year and others who had taken the two-year program, an analysis of these two groups was made. Graduates of the two year program in DE tended to remain in the DE field



more often than those with one year of study. There were no significant differences between the two groups in post-high school training activities, influence in taking the course, formal advancement on the job, salary, unemployment, or job satisfaction. There were slight differences between the two groups in relation to ratings of part-time placement and training stations, primarily because the graduate of the one-year program usually was placed in the first year of the course and part-time placement or training stations were not part of the curriculum at this point. The number and percentage of students taking the basic two year program increased steadily and significantly from 1965 through 1971.

It was also found that those working in the field of distribution would be more willing to take secondary school DE again.

There were no significant differences in income, unemployment, job satisfaction or relatedness of work between racial and ethnic groups. Neither were there any significant differences in unemployment or job satisfaction between sexes. Males were more apt to be found working in the field for which they were trained.

Of the 798 responses, 344 (43%) indicated that they had no DE or marketing training after completion of high school, which indicates that probably 57% of the respondents did obtain some type of further education or training in distribution. The greatest number specified attendance at a "junior or community college." Because of understandable duplication in reporting (e.g., attendance at a community college and then at a four-year college or university), and because some graduates failed to notice the qualification "D.E. or mark-ting training," a finer interpretation as to the extent of post-secondary education was not possible.

WORK EXPERIENCE

Since the DE program is a vocational program and as such is concerned with people and the work they do, the evaluation of placement and work experiences was recognized as extremely important. It was this aspect of the program that was found to be comparatively weakest. Considering the teacher's responsibility for part-time placement (cooperative work-experience) and graduate placement, some of the findings are matters for concern. When 52.6% state that graduate placement effectiveness "does nor apply" and 18.9% consider it "poor," this aspect of the program can be questioned. Another question, which asked



from whom the greatest help in graduate placement was obtained, efficited the following responses: 24.4% stand "document, place", place 27.3% identified "relatives on friends," 24% said "other" and only 19.1% mentioned teachers' placement activities.

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- 2) there is a significant reduction in the percent in the field of distribution than was reported in the first job, indicating a tendency to leave this field of work.

Finally the unemployment rate of 14.7%, though better than that of recent high school graduates, was higher than that of the State (9.7%) as issued by the Labor Department for the same year.

The pattern of responses showed that the graduates surveyed found the program satisfactory and rated most of its aspects highly.

As good as any program is, there is always room for improvement. In this case, consistent with vocational education's concern with people and the work they do, some improvement is desirable. Considering the number of estimated DE workers needed (11,800) in the 1974 - 1975 year and the secondary school enrollment (3,259) in DE for the same period, there appears to be a need and an opportunity to serve more students. Effective guidance, which indicates to the student the objective facts that show this field as a large occupational area and a rapidly expanding one is indicated. The quality of this program is such that it appears evident that it has the capability of preparing students for entry and success in the field of distribution. The program lacks sufficient distribution-oriented students and a more effective placement program. Strengthening the program will require the coordinated activity and shared interest of the DE teachercoordinator, guidance counselors, administrators and parents.

Prepared by
Herbert Righthand
Assistant Director
Bureau of Research, Planning and Evaluation
Division of Administrative Services
Connecticut State Department of Education



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DIVISION OF VOCATIONAL EDUCATION

P.O. Box 2219 Eartford, Connecticut 06115

Edward A. Sillari Associate Commissioner and Director

A FOLLOW-UP STUDY

OF

CONNECTICUT DISTRIBUTIVE EDUCATION GRADUATES

ÖF

THE CLASSES OF 1965-1968-1971

HERBERT RIGHTHAND

ASSISTANT DIRECTOR

CONNECTICUT STATE DEPARTMENT OF EDUCATION

HARTFORD

JULY, 1977



FOREWORD

The status and attitudes of graduates are vital aspects in the evaluation of vocational programs. This study has obtained a great deal of information dealing with the occupational status and former students' evaluation of Distributive Education programs in Connecticut. Its value lies not in its findings but in the actions which result from the findings. The knowledge that the Distributive Education program is found satisfactory by so many of the graduates and that the job opportunities in the field of distribution far exceed the placements in this field is both a basis for satisfaction and of concern. The ultimate value of any study or research is in the impact it makes on the educational program. In this regard this study contains valuable information which, if used effectively, can produce improvement and expansion of our programs in Distributive Education in Connecticut.

Edward A. Sillari
Associate Commissioner/Director
Division of Vocational Education



ACRNOWLEDGEMENTS

The primary acknowledgement must be made to those graduates who cooperated by completing and returning the questionnaires. Additional thanks is expressed to Mr. John J. O'Brien, State Supervisor of Distributive Education and the many teacher-coordinators of Distributive Education who assisted in the development and conduct of this study. For the assistance in the processing of the data through the computer, Dr. Evan E. Confrey deserves acknowledgement.

Of course, without the help of the personnel in the Central Service Unit for the reproduction and mailing of the materials, this study could not have been conducted. An important acknowledgement is due the Research and Planning Unit of the Division of Vocational Education which provided Federal funds (Part C from P.L. 90-576) for the costs of this survey. Despite this limited attempt to list the many contributors to this study, there are undoubtedly others who in one way or other aided the conduct of this study; to all of these, many thanks!



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7.	Specific Satisfaction on Present Job



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A FOLLOW-UP SURVEY

OF

SECONDARY DISTRIBUTIVE EDUCATION

CRADUATES OF THE CLASSES

OF

1965

The field of distribution is one of the largest occupational fields in the United States and in Connecticut. In Connecticut, for 1975, approximately twenty-one percent of the average current employment was estimated to be in distributive occupations according to the data shown in Part 2, p. 1 (Connecticut State Department of Education, 1974.) The term, distributive occupations, refers to those occupations which involve the transmission of products or services from the producer to the consumer. Distributive occupations can be categorized as; proprietors and managers engaged in marketing or merchandising, salespersons (wholesale or retail), window display specialists, buyers, agents, advertising personnel, etc. Distributive personnel work for manufacturers, distributors, retail establishments, real estate, insurance and banking establishments, etc.

The secondary Distributive Education program in Connecticut is offered in local education agencies in the 11t and 12th grades. The first year of this program is spent in preparatory aspects of distribution and marketing. The second year offers a more advanced program and includes cooperative work—experience which requires part—time job placement of the students in a training station in a distributive field. The program generally includes such areas as; selling, sales promotion, buying, marketing research, product and service knowledge, business and social skills, management principles, the economics of distribution, and distribution career information. This is not an all inclusive listing nor does it represent a rigid curriculum followed by all schools.

The common goals of all DE programs are that they seek to prepare their graduates with the necessary entry skills and knowledge for entry into a distribution field and to function as a member of the community and a good citizen. In addition to the common goals, they all use a common methodology, hamely the use of training stations or part-time employment. Most programs also utilize the Distributive Education Clubs of America (DECA) chapters, curriculum tools providing students with an opportunity to function in a democratic society and opportunities to compete in such skills as sell-



ing, window displays, public speaking, job interviews, etc.

The teacher of these programs is known as a teacher-coordinator and is responsible for the identification of training stations, the development of training agreements with business which provide learning experiences and salary, obtaining school credit for the paid work experience and the evaluation of the students' progress on the job. The teacher is also responsible for student recruitment, classroom instruction, DECA chapter leadership, graduate placement and follow-up. This pattern of operation is similar to that practiced in other states (Galyean, 1974).

Statement of Problem

USA and Connecticut. In addition to its present vital status, it is expected to increase its importance in our economy. This alone would be sufficient justification to conduct a study of the effectiveness of the DE program. An additional factor leading to the conduct of this study stemmed from the Report on Secondary Vocational Education pp. 10, 28 issued by the Program Review Committee (Connecticut General Assembly, 1974). This committee referred to the legal requirement of evaluation of all vocational programs and indicated its general dissatisfaction with the quality of graduate follow-up which it considered a vital form of evaluation.

It should be noted that in Connecticut, the Labor Department in Part 2, p. 1 (Connecticut State Department of Education, 1974.) had projected for the 1974-1975 year, a labor demand in distributive occupations of 11,800. This estimated demand exceeds the total DE enrollment by 8273. In fact the estimated completions (1,430) are only about 12% of the need. The problem is that hundreds, possibly thousands, of students are being deprived of occupational opportunities for which the DE program provides entry preparation. On the national level, Dr. Leonard Lecht of the New York-based Conference Board, in a study completed for the U. S. Office of Education, was cited on p. 4 in the Education Daily (December 18, 1975) as finding too few students in distributive education courses in relation to expected job openings.

In summary, the problem faced is the vital need for an assessment of the effectiveness of the program in terms of its service to the students and the community.

Goals and Objectives

The primary goal of this study is to assess the program on the basis of the graduates' status and perception of the program. In vocational education the evaluation of a program is very much concerned with the extent to which the graduates are employed in the field for which they are prepared. This is done through a graduate follow-up. Graduate follow-up studies measure the effectiveness of the program (Florida State Department of Education, 1973) and check the relevancy of the curriculum (Gilli, 1: 3, 1975).



Brantner, (1975) points out that placing graduates in the field for which they were educated is a responsibility of the vocational teacher. The Florida State Department of Education (1973, p. 7) defines a follow-up study as "a systemic examination of the performance of former students in relation to goals and objectives of the educational program through which students were prepared."

More specifically the study seeks to ascertain the following information:

- 1. Initial and current employment information.
- 2. Graduates' perception of the value of the DE program.
- 3. Pursuit of post-secondary education.
- 4. Differences among graduates according to ethnicity, sex, year of graduation, etc.
- 5. Data, such as in-state employment and residence and salary usable to determine the extent of fiscal return to the community. The various data sought in this study are shown in the questionnaire in Appendix A.

Review of Literature

Two main areas of literature review were conducted. One was on methodology, essential in order to obtain the best possible response. The other was of Distributive Education Studies dealing with graduate follow-up. The latter review provided a basis of comparison of the Connecticut findings in relation to other results.

<u>Methodology</u>

An intensive review of literature related to techniques used to obtain a high rate of response was conducted. Some of the recommended procedures for obtaining a favorable response rate were; use of postage stamps rather than metered mail, official sponsorship, personalized cover letters, pre-survey letters, gifts as incentives, colored paper, and stress on the confidentiality of the data. These techniques were reported, in various ways, by Buse (1973), Gullahorn and Gullahorn (1963), Huck and Gleason (1974), Pucel (1974), Pucel, Nelson and Wheeler (1970), Strand (1973), and Veiga (1974). As many of these recommendations as feasible were used.

The issue, as to what constitutes a significant percentage of return, is moot. Returns have been reported ranging from 31.2% (Ely, 1964) to 94.6% (Gran, 1972). Kremer (1970) asked one hundred schools in the Chicago area as to whether or not a formal follow-up was conducted. His returns showed that only one thir bof the schools had conducted a formal follow-up and that the percent return ranged from 25.3% to 100%. The latter percent was obtained from a small school with a total enrollment of eighty-four and a director of guidance who knew a lof the graduates personally. Othney and Mooren (1952) report that incomplete returns are decay we and recommend that the interpretation of results consider the factor of incomplete returns. Helmstadter (1970) found that returns it less than 50%



are most common, while higher percent returns are rare. Hochstim and Athanasopoulos (1970) confirmed that bias does exist in the non-returns, but feel that the bias is so slight that one can assume that the findings can be considered appropriate for the total population.

Distributive Education Studies

Consistent with the practice in all fields of vocational education, graduate follow-up studies have been conducted in the field of Distributive Education. Extracts of some of these studies, those related to this survey, are referred to below

Domain (1974) surveyed 100 high school grau and programs from the classes of 1971, 1972 and 1973. With a response rate of 50% for each class and a sample of 50 found that all respondents would recommend the program to other high school students. Their current employment showed that 20 or 40% of the respondents were working in the field for which they were trained; while nine continued their education. All fifty graduates stated that they would choose to take DE, if they were back in high school.

A study entitled "Follow-Up of Fiscal Year 1970 Office and Distributive Graduates from Vocational Education Post-Secondary Programs" (Bloomquist, Wheeler and Nord, 1974) located 80 out of 95 graduates; of this number fifty-three or 66.25% responded. Close to 60% had changed jobs since their first employment upon completion of their vocational program. In describing the adequacy of the training relative to their first job over 89% found the program adequate or more than adequate. The number and percent not-responding or indicating that the training was not adequate was the same for each 2 or 5.41%. Interestingly the two who stated that the program was inadequate still stated that they would recommend their school to others. This study delved into many aspects of DE program evaluation, unfortunately it was a study of post-secondary graduates and had only 37 respondents so that parallel to this present study is limited.

Furlong (1974) in a study of DE graduates from a high school for the years 1967-1972 obtained 92 returns from a potential of 98 graduates. This study conducted in 1974 found the majority of graduates still living in the area of the school location. Placement in the field for which the program was intended was comparable to that of other DE graduate follow-up souds s, namely, just under nce graduation, the majority of e respondents have had three I fewer employer Forty-seven (- $\mbox{\em Z}$) percent stated that the DE program did a x = 1-xo-excellent j = of preparing them for resent employment. The percent of graduates continuing their edleation was over sixty (60). Eighty-three percent (83%) were satisfied or well-satisfied with their jobs. The aspects of the program dealing with occupational dijustment and career exploration were considered most important to the respondents.

• In a follow-up student of distributive education graduates of a high school, flarnes, 967), used all students who could be located as the sample for the study. This provided 334 or 61° of



the graduates for interviews. It was found that 40% of the interviewees had completed one or more years of college. The graduates indicated that the most helpful components of the DE program were salesmanship, customer relations and getting and keeping a job.

Procedures

The graduating classes chosen. Leaved those of 1965, and 1974, thus seeking information from graduates with ten, seven and four years of post-graduation experiences. This approach not only provided an opportunity to obtain information concerning the status of the graduates and their appraisals of the DE program but also provided some insight into the changes in status occurring with the passage of years after graduation.

Considering the possible difficulty in locating and getting responses, all graduates of these three years were considered the population to be studied and those located were to be treated as the desired cample. This provided a population of 379 from 1965, 805 from 1968, 948 from 1971 and a total of 2132.

One of the first steps in the conduct of this study was to meet with the Distributive Education Coordinators' Ad Hoc Committee on the Graduate Follow-up Survey and with the State Department of Education DE program supervisor in order to spell out the parameters of the study. Some of the information desired by the various persons involved in DE included, first and present full time job, subsequent educational experiences, evaluations of various aspects of the DE program, job relatedness, sex, ethnic origin, job satisfaction, recommendations for improvement of program, etc. (See Appendix A). The teacher coordinators agreed to provide the names and addresses of the graduates and to assist in making contacts and obtaining responses.

At the same time, a review of literature was being conducted to obtain a questionnaire format (Pucel, 1974) and descriptions of optimum techniques for obtaining maximum responses (see Review of Literature above). With the information obtained from the review of literature, the DE teachers and supervisor, and with the assistant of data processing and form design specialists, a tentative que tionnaire was developed. In order to make sure that this questionnaire could be understood and properly answered by graduates, a lot test was made with an alumni group of recent graduates. Or see basis of this experience the questionnaire was put into final for .



in an informal style, requested apoperation, stressed confidentiality, emphasized the importance of the st d expressed that in case the letters had crossed in the personnel limitation Tlowing tech personalined in rvel envelog,, an a state of coffee, pencil or money, special mailing techniques such as special delivery or registered mail, a pre-survey letter or other recommended procedures.

The sequence of mailings was made in the order of the graduating class; i.e., 1965, 1968 and then 1971. The first mailing, consisting of the quisilounaire and a letter (Appendix B), was made in February, 1975. The responses were reviewed by the researcher and the program supervisor and set aside for key punching. When no response was received but the letter was not returned as undeliverable, a second letter (Appendix C) and a second questionnaire was sent out approximately one month later, if still no response a third letter (Appendix D) and a questionnaire were sent. Letters that were returned as undeliverable were checked through city directories and telephone books for a better address. If a different ... address was obtained the first wave of materials were sent out again. This process was repeated for the second and third waves if no responses were obtained. After going through three waves the names and addresses of the nou-respondents and the undeliverables were sent to the respective DE teachers for further follow-up through personal phone calls and through parental contact. This was the process followed for all three graduating classes.

During this period, a computer program was prepared; to provide a frequency distribution of responses for each variable by year of graduation and overall. A pilot run was conducted to test the program and to help Hentify other possible statistical treatments. The results of this first run were discussed with the Ad Hoc DE Teachers Committee and the program supervisor for their input in terms of additional analyses. When it appeared that all the returns that were going to be received were optained and the data processing program was complete; a final run of all available data was done and analyzed by the researcher and the program supervisor. These findings were summarized and presented to the DE teacher-coordinators.

Findings

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Returns

The tember

belo -reent of delivered dil was 48.7% whit int for mair η_{ij} was 37.4%. was felt that undelivered mail resulted from a change of address and/or change of name and that this would primarily bias the data dealing with residence and possibly location of employment. The more serious bias might result in those cases where a graduate apparently received the questionnaire but failed to complete or return it. Various studies have shown that non-respondents differ from respondents in sex, ethnic origin, achievement, educational level and occupational success. Since it is not reasonable to expect one hundred percent return when dealing with so large a population, it was felt that 798 usable returns could provide an adeqmate insight into the activities of the graduates and their attitudes toward Distributive Education. The number of undeliverable letters for the ten year graduating class was the greatest, though the response rate for all classes was similar. The researcher took (ϵ position as stated by Hochstim and Athanasopoulos (1970); namely, that there is a bias in the non-returns but that it is so slight, that it is possible to consider the findings as reflecting on the total graduate population. There are a few cases where the returns are reduced still further and in those cases the interpretation is questionable.

TABLE 1

Distributive Education Follow-Up Results

°Graduating Class

Class	1965	1968	1971	Total .		
Number Mailed	379	805	948	2,132		
Delivered	240	614	783	1,637		
Per Cent Delivered	63.3	76.3	82.6	76.8		
Returns	113	289	396	798		
Per Cent Returns				•	şir	
of Delivered	47.1	47.1	50-6	48.7		
Per Cent Returns						
of Mailed	29.8	3~.9	$\sim \epsilon . 3$	37.4		

Residence

The residence of the graduates is important since a state resident provides; a potential source of tax dollars for the local community and the state. This aspect of education has increased in importance, in fact, according to the Advisory Council for Technical-Vocational Education in Texas, (May 1976, p. 1) "all educational programs must be held accountable for their contributions to the state's overall socioeconomic growth." The bulk of the respondents (90.5%) were still Connections residents. The graduates of ten years

ago reported that 19.6% left the state, those of seven years ago showed that 9.4% left while the most recent graduates, four years ago, had only 6.6% leave the state. The percent leaving the state for the total group was 9.5%. (A limited comparison can be made between this fact and that reported by Pucel and Luftig (1974, p. 40) in a mobility study of graduates of the Minnesota Area Vocational-Technical Institutes after one year of graduation. Their data showed that "less than 10% of those students graduating from Minnesota AVTIs who were originally Minnesota residents probably obtain jobs in states other than Minnesota.")

Despite the small number of respondents leaving the state, those that did were found in 26 states including Alaska and in three countries (Japan, Australia and Canada).

TABLE 2

Residence

Graduating Class

•	196	55	196	8	197	1	Tot	al
Location	No.	75 -	No.	"/o /o	No.	%	No.	% /
Connecticut	90	00 /	250					
Out of State	.90 22	80.4	259	90.6	207	93.4	716	90.5
yac or state		19.6	1 27	9.4	- 26	6.6	75	9.5

Sex

The participation of females in this program shows an increasing percentage from 38.4% to 52.7% with an overall percent of 47.2%.

TABLE 3

Sex

Graduating Class

		1965		1968		197	1	Total	1
Sex .	The profession of the law of	No.		No.		No.	<u> </u>	No.	10
Male		69	01.6	163	57.0	187	47.3	419	52.8
Female			30.4				52.7	374	47.2

Since there is a strong interest in the outcomes of this type of education, male/female comparisons in relation to other variables were conducted. The predicted there was a significant difference in the majority of the males and females. The



distribution of the salaries for the present (1975) job are shown in Table 4, which also includes the means and the standard deviations for each. A test for the significance of the difference between the means was made and on the basis of a test it appears that a difference of this size could only occur by chance one out of a thousand times.

TABLE 4
Sex and Salaries

Amount	Male	Female	Total	
\$50 and Under	3	0	3	,
\$51-\$100	15.	38	53	*
\$101-\$150	73	117	190	
\$151-\$200	93	42	135	
\$201-\$250	59	7	66	0
\$251-\$300	33	4	37	•
\$301-\$350	17 g	. 0 -	. 17	
\$351-\$400	4	1	5	
\$401-\$450	4	0 .	4	•
\$451-\$500	2	0	2	1
\$501 and Over	6	1 .	7	
Total	309	210	519	
Mean	\$175.90 [*]	\$111.25*	\$149.75	

^{*} p <.001

Another area in which differences in the sexes in relation to employment, was observed was in the relatedness of the job. As noted in Table 5 the males were more apt to be employed in the field of distribution or in a closely related field than the females. From the data in the table it is shown that of the 202 in DE or related 69.8% were males and 30.2% were females or looking at it a different way, 43.7% of the working males and 28.9% of the working females, were in DE or a closely related field. In this case, just as in the convarison of salaries, the difference between the two was highly significant. No significant differences were found between the sex in job satisfaction or unemployment.

Sex and Relatedness of Job

Character of Job	Male*		Female	* =	Total		
						,	
Related	141	,	61	•	202		¢.
Not Related	182 -		150	,	332		
Total	323 3		211		534	•	

^{*} p<.001

Ethnic Background

The racial and ethnic background of the respondents is shown in Table 6. The numbers for specific ethnic backgrounds are extremely small, in fact, the overall total of minorities is only 42 or 5.75%.

TABLE 6

Racial and Ethnic Distribution

Classification	Number	Per Cent	
American Indian Black Spanish	4 30 3	.5 3.9 .4	,
White Other .	728 5	94.6	

Because of the small number of minority enrollees, analysis of the status of this group must be interpreted with caution. As shown in Table 7, below, the numbers of minority respondents who answered some of the significant variables is still further reduced, ranging from 25 responses for salary to 35 for employment. With the understanding that the evidence presented is far from being "beyond a shadow of a doubt", it is still gratifying to note that there are no significant differences apparent between "whites" and minorities in salary, employment, DE relatedness or job satisfaction.

TABLE 7
Minority and White Differences

Variable	Minority	White	Total		
Salary	,		- 4		9
\$200 & under	20 .	359	379	à	
\$201 & over	. 5	132	137		
Total	٠25	491	516		
Employment					
Employed	. 28	· 496	524		
Unemployed	7	82 .	89		
Total	35	578	613		
DE Relatedness.		`			
Related	12	185	197		
Unrelated	16	311	327	•	
Total '	28	496	524		
Job Satisfaction					
"Like '	25	433	458		
Dislike	1° -	: * 29	30		
Total	26 .	462	. 488		

Years of Study

Trend. Though the Distributive Education program is basically a two-year program, seniors are permitted to enter the program, if they indicate and interest, and are usually assigned to the first year program, DE I. This provides an opportunity to observe the differences in the outcomes between the two groups. Table 8 shows that there is a trend to a greater number of two-year enrollees as the years went by.

TABLE 8
Years in Distributive Education

Graduating Class

•	19	65	196	8	197	1	Tota	a1	
Years	No.	<u>%</u>	No.	%	No.	%	No.	%	
			3 4			.,,			
One Year	77	72.6	108	40.5	` 120	35.1	305	42.7	
Two Years	29°	27.4	159	59.6	222	64.9	410	57.3	
					•				

Training Stations. The issue of one-year and two-year graduates was brought up by several DE teachers during a discussion of some of the "poor" and "does not apply" evaluations of part-time placement. An additional analysis of the one-year and the two-year graduate was done since it was pointed out that the one-year student is generally assigned to DE I, which does not generally involve cooperative-education and training stations. The findings bore this out, as shown in Table 9, indicating that 64 or 21.8% of the one-year students stated that they "did not participate" in training stations as against the 45 or 11.4% of the two year students who indicated likewise. The rating of the training stations as shown in Table 9 for the two groups were significantly different, however, when the non-participants were omitted and the rest grouped into two categories (inadequate and adequate or better) there was no significant difference between the two groups.

· TABLE 9

Value of Training Stations

bу

Years of Study

Responses	One Year	Two Years	Total
Excellent Good Adequate Inadequate Did Not Participate Total Respondents	50	90	140
	102	174	276
	61	64	125
	16	23	39
	64 (21.8% ^a)	45 (11.4% ^a)	109 (15.8% ^a)
	293	396	689

apercent of respondents

Part-time Placement Services Similarly, in the responses to a question dealing with the quality of part-time placement services (which relate to placement in training stations in DE II) the one-year students showed 103 or 36.4% of the total one-year students responded with "does not apply" while 23.8% of the two-year students replied in the same manner. Of the total number of answers indicating "does not apply" 52% were one-year students. The differences in the students judgement of the effectiveness of the part-time placement services were significantly different between these two groups. Once again, as described in the previous paragraph, when the "does not apply" respondents were omitted and the respondents who provided an evaluation were put in two groups, good or better and poor, no significant difference was found between the groups.



^{*} p<.001 (includes non-participants), exluding non-participants, difference is not significant

TABLE 10 Part-Time Placement Services

Ъу

Years of Study

Years of Instruction	Excellent	Good	Poor	Totala	Does :	not apply	Total Respondents
			**************************************		-		<u> </u>
One Year"		6.9	33	180	103	36.4	283
Iwo Years*	151	116	ನಗೆ	305	9.5	23.8	400
Total	220	185	:	485	198	29.0	683

^aTotal of those who indicated item applied bPercent of respondents (/

Other Variables Since the issue of one-year or two-year programs is vital to the conduct of the DE programs, further investigations concerning the differences between the two groups were conducted. For instance, no significant differences were found between the two groups in salary, employment, job satisfaction, post-high school training, formal advancement or influence in taking DE program, though in the last case the influence of the DE teacher was somewhat greater for the two-year students. Table 11 shown below shows the distribution of the two groups in relation to the relatedness of the 1975 job held. There is a slight difference between the two groups, showing that a higher percent of the two-year respondents were in the general field of distribution.

TABLE 11

Job Relatedness

bу

Years of Study

Years of Instruction	Related	Not Related	Total
*			
Óne Year*	69	149 *	218
Two Years*	129	176	305
Total	198	325	523

p < .014

^{*} p<.001 (includes non-participants), excluding non-participants, difference is not significant

Influence in Enrollment

The DE teacher-coordinator has responsibilities which are beyond those of the regular subject area teacher. One of these, is providing information concerning the field of distribution and assisting in the "recruitment" of students for he program. Despite this usual practice, the respondents in their answers to "Who influenced you most to enroll in a DE program?" ranked the DE instructor second as an influential factor. In fact as shown in Table 12, 75.2% were influenced by others or self,

Since there were 146 who checked "other" for an influencing factor it was felt that a summarization of the written explanations was essential. It was found that 78 stated that they were not influenced by anyone, 14 indicated that they took the course because they needed the credits, nine stated that they were influenced by relatives and 45 provided miscellaneous explanations.

TABLE 12

Greatest Influence to Enroll

in

Distributive Education

Person	No.			%
Guidance Counselor	169			21.9
DE Instructor	191	•	٠	24.8
Parents	10:			1.3
Fellow Student	225			29.2
Other Teacher	30	**		3.9
Other	146			18.9
Total	771			

Student Evaluation of Program

In order to obtain the graduate's assessment of the quality of the NE program, questions were asked in various ways, some providing overall judgements others dealing with specific aspects of the program. The responses to the evaluative questions are listed below. Subsequently the relationship between the respondents evaluation and his general career success will be analyzed.

Taking DE again. One approach to obtaining an overall judgement was to ask the graduates whether in similar circumstances, they would take DE again. The results showed a high degree of satisfaction, with 85.1% stating that they would re-enroll under similar circumstances. This finding was consistent with each graduating class as well as with the overall respondents. Table 13 provides the



number and percentages answering this particular item.

TABLE 13

Take Distributive Education Again

Graduating Class

	196	55	196	8	197	1	Tot	al	,
Re-enter	No.	%	No.	. /s	No.	% "	No.	· /o	
Yes	92	84.4	236	83.7	330	86.4	658	85.1	
No	1 7	15.6			52		115	14.9	

Quality of training received. Another approach to obtaining an overall evaluation is shown in Table 14. The small percent (6.4%) stating that they found the training received "inadequate" is another indication of the general satisfaction with this educational program.

TABLE 14

Quality of Training Received

Rating	No.	%	
Excellent	231	29.7	
Good	351	45.1	i
Adequate	147	18.9	
Inadequate	50	6.4	•
Total	779		

Quality of DE instruction. This item was aimed at getting an assessment of the quality of the classroom instruction. Once again the respondents were quite satisfied since they reported "poor" in only 5.4% of the responses.

Quality of Distributive Education Instruction

Rating		No.		
Tamad To and translating assessment of the state of the s	*			==
Excellent	•	329	42.4	
Good	•	4.05	52,2	
Poor		42	5.4	
Potal		77ti		

Facilities and equipment. Since in vocational education the quality of the facilities and the equipment is vital to a good educational program, the graduates were asked for their opinions concerning these factors. In this case, only 22.8% thought the facilities and/or equipment were inadequate. This, despite the fact, that several of these programs were just getting started and were not in the best of facilities and were not fully equipped, represents minimal dissatisfaction.

TABLE 16
Facilities and Equipment

Rating	No.	%	
Excellent	108	13.9	
Good	490	63.2	
Poor	177	22.8	
Total	775		
	official trace of printed by Manusches of Assessment and the second control of the second		

Value of training stations. Because Distributive Education is essentially a cooperative-work-experience program (required in the second year, DE II) the reactions of the graduates to the garttime job or training station is significant. Since as indicated previously, several of the programs were new and so II had not fully established the cooperative phase of the program, and the number of non-participants was rather high, it was felt desirable to show the mases in relation to the participants as distinct from the of respondents. Of all the participants who responded to tem 93.2% thought the training stations were adequate or the specific distribution of the responses are shown in Tail

TABLE 17
Value of Training Station

Rating	No.	%a	
Excellent	148	23.5	
Good	303	48.0	
Adequate .	137	21.7	
Inadequate	43	5.8	
Total Participants	631		
Did not Participate	124	16.4 ^b	X.
Total Respondents	755		

^aPercent of Participants ^bPercent of Respondents

DECA competition. It is customary for an established DE program to form a chapter of the Distributive Education Clubs of America, (DECA). These clubs are co-curricula and provide students with opportunities to compete in techniques of selling, public speaking, advertising layout, job interviews, etc. Since these competitions are related to the educational goals of the program it was considered desirable to obtain graduates' assessments of the value of DECA competitions. Once again because of the number of non-participants it was deemed necessary to structure the table so that the interpretation was possible on the basis of participation. The findings as shown in Table 18 are, once more, favorable to the program itself.

TABLE 18

Value of DECA Competition

ating	No.			
	0			
Very	213			
∋omewhat	309		•••	
Little	82	,		
No Value	29	.:		
Total Participants	633			
Did Not Participate	1:35		1	
Total Respondents	768			ė
•				

aPercent of Participants
bPercent of Respondents

Value of DECA chapter and school stage. The respondents were asked to rate the value of the DECA chapter and the school store. This case, a number of responses in Haated "does not apply" (c. s. Since this may have several interpretations: 1) no such program available, 2) did not participate in activity, or 3) some ther explanation; the data in Table 19 had to be treated somewhat differently. This table shows the number of respondents for these items and then the percent of respondents who indicated "dna". The percent for the three ratings of "excellent", "cood" and "poor" is based on the total who did not indicate "dna". The data show that 96.6% thought that the DECA activities were good or better and 86.1% round the school store to be good or better.

TABLE 19
Quality of Service

Rat:	No.	· 6,2	
Excelment	163	30.0	
Good	329	6U.6	
Poor	51	9.7	
Total Participants	543		
	171	24.0 ^b	
Total Respondents	714		

		Schoo!	Store	
E willent G J P c		le 25r 37	34.2 53.8	
otal Par L. Not Par Jotal Re	aipa z	47 <i>r</i> 237	3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3	
the state of the s	A T			

are to of Enticipants by the tent of Respondent.

Mon-placement services. The next table deals with a revices provided students, when requested, but which are not a considered essential activities of the teacher-coordinator. services identified in this table deal with personal problem career choice, and financial assistance. The "dna" responses this case may mean the student had no need for the service, or the ware obtained through other staff mambers or sources. The same the

of separation was used in Table 20 as in the table above. The percents shown for the "dna" responses are cased on the number of Despondents and the percents for the quality ratings are based on the number who found the services applicable. As might be expected the quality ratings of "poor" are highest for "financial assistance" and lowest for "career choice". In general the ratings for these services for those seeking them were found to be over 50% showing satisfaction.

TABLE "
Services Provided by Program

Other Than Placement

	Personal	Problems	Career	Choice	Financia	l Assistance
Rating	No.	%	No.	6/ /o	No.	
Excellent Good	4. 27	24.2 53.6	128 322	23.2 58.2	33 95	13.7 39.4
Poor Total	11	22.2	103	18.6	113	46.9
(app lcable) Did No Apply Total espond-	50: 2 2	31.3 ^b	553 188	25.4 ^b	241 480	66.6 ^b
ent	1		741		721	

se to whom service are lade.

From the lal respondents

alive ratings. In order to obtain a comparative eva id as DE activities the gradu tes were asked to mati nof activities; classroom instrution, DECA activities, rank lour and the school store in the order of importance trai ing s. ing a l for the most important and so on down to to them, by rovide some of the activities identified in Table 4. Failure 21 or failur. .. participate in them resulted in a number of "blar s". The table 110000 the mean rank order of importance and the number ϵ "blanks" as reported. This ranking should provide some insight to the teacher-coordinators as to the graduates values related to the e activities.

3 =

TABLE 21
Value of School Activities in Rank Order

Activity	Rank Value ^a	No. of Blanks			
Classroom Instruct on DECA Activi y Training Stations School Stor	1.83 2.3 2.25	1 2 6 186 431 441			

Lower aumbers indicate higher rank

Minimpless to Help. Another indication of the responding students' satisfaction with the program is shown in Table 22. This table's data are based on the numbers who indicated their willingness to serve in the various capacities. Since there was no limit on the number of areas and individual to ald offer his services and no provision was made for individual to say "no" in any of the activities, the table is limited to subtracting the "reservices are from the number responding and computing percents sape tiely for each activity. One factor, the willingless to provide training stations the limit percent (11.2% agreeing to participate, is since by the particular status of the respondent.

TABLE 22

Willingness to lp						
one charte	Yes No.		lo R€			
Serva a mber of loor Sta D. Jvisory ed		9.2	565	10.8		
Provide trailing static for DE studies	ons 89	1.2	709	88.9		
Serve as a judge for DECA conference	25 .		ē:	68.6		
A. Marie						

nt of lirespon ints (7%)

verns o i v educati in program were job salary, employment, job satisfaction and the relatedness of the employment to DE. It was felt desirable to check the extent to which positive outcome in these four triables may have contributed to the students' pro nam ratings. Ther salary or employment related to the position ratings for craining received, DECA competition training Taceived, DECA competition, training st job places. DECA services, school store, facilitles and dent or the will inghess to remember DE. Job satisfaction di. show any relationship between satisfaction and any In the exception of some three of significance in of the ab: relation : willingness to enter DE 1 carting over. Job satisfied rest musts tending to indicate to a greater extent that they would enter II if they were to start over. In the case of respondents working or not working it he field : ribution there were three excent the no - ificant plateon on program judgements. "t appeared that mose in the eld of distribution were more apt Lo state their willingness to outer a Discretam on praise DECA competition, and were more said led with the early ment and facilities of the mool program, leneral it would appear that bethat doubt no ob, mong comparatively good that had distant are not the factors ing emplo di, salary and wo which led to un to a cas of learn ram.

21: Lement

Th pla at function is an elected important activity in rocational upper It is article of ational-technical emake to the "The in man purpose of vocation-equir error, for using a coloyment." (Shoemaker, education By-Li education _ 967, p. 120) the case of the DE teachers endinator there are _uzl responsibl_ ites; flist, prometime place DE II carriculus it placing and supervision in training state as, second placement us to in the field for which the advance was to in . It is in these areas the ovement arbe oom for

tes a part of the second year students aduation, hopefully

ersons who rided the gr the perso. a job on an ation. Table 13 below shows respondent said "does no ply". This is ferent mealings, such as, stained job on mir own, aid not seek a job or come possible en lanctions. In not apply' responses are reath separate in the table and are reported a percent of seponents. The boarde of the responses are measur ... gainst the gal of those w was applic

ere asked to identify assistance in getting 187 or 24.4% of the have a variety of difof this the "does alt that this question

Greatest Help Getting Job

TABLE 23

Source of Assistance	No.	c, a .
DE Instructor School Counselor Relative or Friend State Employment Agency Other Total (Applicable) Did Not Apply Total Respondents	146 16 209 24 184 579 187 766	25.2 2.8 36.1 4.1 31.8 24.4 ^b

^aPercent of total (applicable) ^bPercent of total respondents

Placement services. The importance of Table 24 lies in the fact that the teacher is responsible for both graduate placement and part-time placement. Once again, the choice of "does not apply" is difficult to interpret, particularly for the part-time placement since the curriculum requires that second year students (DE 2) be placed on a part-time job (training station). The graduates indicating "does not apply" for graduate job placement may have done so because they were not seeking work (homemaker, sick, or other), or perhaps received help from some external source of found the teacher not to effective in placement. In the case of the parttime placement other explanations may be appropriate; limited parttime jobs available, new program and cooperative aspect still not established or other special contingencies. The table, therefore separates the "does not apply" category from the others. The concern with the data shown in this table is with the 39.9% of the total who found job placement on graduation applicable, signifying that the service was "poor"; and in the case of the part-time placement, 15.2% stating it was "poor".

TABLE 24
Placement Services

On Gra	duation	Part-T	ime
No.	%a	No.	· %a
55	15.7	241	46.4
156	44.4	199	38.3
140	39.9	79	15.2
351	_	519	
389	52.6 ^b	225	30.2 ^b
740		744	
	No. 55 156 140 351 389	55 15.7 156 44.4 140 39.9 351 389 52.6 ^b	No. %a No. 55 15.7 241 156 44.4 199 140 39.9 79 351 519 389 52.6 ^b 225

^aPercent of total (applicable)
^bPercent of total respondents

Employment. The table below shows the current (1974-1975) employment of the respondents. The row identified as "related" refers to those jobs in the field of distribution or closely related to it. The percent shown for related, not-related and unemployed represents the percent of the number available for work. These percents were fairly constant for each graduating class.

Comparisons of unemployment data with other studies are difficult, since other studies are done frequently at different time periods after graduation and in different economic environments. It is still helpful to make these comparisons using caution in the interpretation. Haines and Ozzello (1966) found that approximately 1% were unemployed in a graduate follow-up study, ten months after graduation for the class of 1964. Their study also found that more than half were employed in the field for which they were trained. The Wyoming State Department of Education (1967) found in its study of 1966 graduates, that 8% were unemployed and 62% were working in the field for which they were prepared. Yet, another study (Fetters, 1975, p. 13) reported that 24% were not working and were looking for work in September, 1973, having graduated in June, 1972. This was a national study and included all "Votech" high school programs.

Closer to home are the data issued by the Labor Department of Connecticut for the period between January and June, 1975. Their original information indicated an unemployment rate of 9.7%, subsequently a more accurate revision reported the rate for this period as 8.8% (Horowitz, 1977). Despite the fact that this data applied to all occupations, it referred to the unemployment of adults, which corresponds more closely to the group in this survey, than the data on recent high school graduates. Another comparison with in the state is available in the graduate follow-up of the 1974 graduates conducted by the Connecticut State Department of Education

(1975). This survey found that 10.1% were unemployed six months after graduation. This rate was lower than that found for each of the graduating classes in this survey, despite the fact that youth unemployment soon after graduation is usually above average. Another comparison is available from Project Baseline (Lee and Fitzgerald, 1975, p. 22) which shows 11.4% unemployed nationally and 11.5% for Connecticut for the 1974 fiscal year for all secondary vocational graduates.

TABLE 25

Current Employment and Unemployment

Graduating Class

Status	19 No.	165 %a	190 No.	68 ∞a	197 No.	l za	Tot	· -	
Employed	,					\	No.	%a	
Related	29	34.9	76	33.0	97_	31.0	202-	32.3	
Not Pelated Unemployed	44 1 0	53.0 12.0	123	53.5 13.5	-165 51	52\7 16.\3	332 92	53.0	
Available for Employment	83	and the same	230		313	, } ,	626		

aPercent of number available for employment

Relatedness. With the degree of specialization and the extra costs of vocational education, it is important that accountability of a specific educational program be considered in terms of the percentage of graduates who enter the field for which they have been trained. Table 26 shows the number and percents of graduates entering the field for which they were prepared (or a closely related field) for their first job and for their present job (1975). Relatedness in this table is measured as a percent of those working rather than those available for work as in the table above. This was done so that first and present job comparisons can be made. The data in the table reveal that the percent entering the field of work for which they have been prepared is higher for the first job than that of the present job. This difference was found to be statistically significant, with the possibility of such a difference appearing by chance only one out of a thousand.

TABLE 26

Job Relatedness

Graduating Year

		196	5	19	68	197	1	Tot	al	
dc	11:3	No.	- %a 	No.	%ª	No.	%ª	No.	*,a	
ir	.) ⁴ t	ţ			`	1.				
R. Nol reser	i lated Joh	54 50	51.9 48.1	117 149	44.0 56.0	146 185	44.1 55.9	317 384	45.2 -54.8	
Rel Not	d =lated	29 44	39.7 60.3	76 123	38.2 61.8	97 165	37.0 63.0	202 332	37.8 62.2	

Frence in relatedness, pc.001

Subsequently in the survey those working in areas other than were asked to indicate their reasons for not being in the field which they were trained. Most (44.5%) stated "preferred diftent work", second was "other" (19.5%), and third, "could not get job in DE field" (16.5%). In view of the fact that respondents add check more than one item; and the individual's meaning when they checked "other" or "preferred different work" was not clear, is difficult to assess these results.

State worked in. The graduates of the DE program tended work in Connecticut with only 13% leaving the state. Thus, no retention of the comparatively large percent of trained DE personnel within the state borders should make some favorable impact on the economic welfare of the state. It was difficult to find a survey identical with this one, in its analysis of out-of-state mobility. One of the closest was the one-year follow-up of 1971 graduces of the Minnesota Area Vocational Technical Institutes (Pucel Luftig, 1974, p. 40) which found that 11.5% left the state.

TABLE 27
State Worked In (Present Job)

Graduating Year

Location No	9/			1 ,	71	Total	
	//	No.	%	No.	%%	No.	% .
Connecticut 62 Out-of-State 12 Total 75	82.7 17.3	166 27 193	86.0	227 28 255	89.0	455 68 523	87.0 13.0

Formal advancement. Since there have been charges that vocational education leads to "dead-end" jobs, the issue of advancement on the job is quite pertinent. The graduates were asked to indicate whether they had been advanced on their job, other than by pay increases. Table 28 shows that a majority reported receiving advancement. It is interesting to note that the graduates of ten years ago had a higher percent of advancements than either of the more recent graduating classes.

TABLE 28

Formal Advancement

(Other Than Salary Increase)

Graduating Year

Advancement No. % No. % No. % No. % Yes 72 72.7 152 61.3 195 60.6 419 62.6 No 27 27.3 96 38.7 127 39.4 250 37.4 Total 99 248 322 669		1965.		1968		1971		Tot	al
No 27 27.3 96 38.7 127 39.4 250 37.4	Advancement	No.	%	No.	<u>%</u>	No.	%		%
·	No	27		96		127	39,4	250	

Salary. Table 29 provides a comparison of salaries received on the first job and those in 1975. The distribution of salaries and the total reported differ from those previously reported by sex in Table 4. In Table 29, only those salaries shown on the first job and then again in 1975 are included. The salary difference between the first job and the 1975 job was found to be \$65.25.

TABLE 29 .
Saldries (First and Present Job)

Salary Category	Salary Range	First Job	No.	Present	Job	No.	
The same and the s							
1	\$50 & Under	11		3			
2	\$51-\$100	248		50			
3	\$101-\$150	174	5 .	182	-		
4	\$151-\$200	52		134			
5	\$201-\$250	9		64			
6	\$251-\$300	6		37			
7	\$301-\$350	2		17			
8	\$351-\$400	1	•	5		^	
9	\$401-\$450	0		4			
10	\$451-\$500	0		1			
11	\$501 & Over	1 .		7 .			
Total ·	, , , , , , , , , , , , , , , , , , , ,	504		504		•	
Mean		\$84.05	·	\$150.30			

These data were restructured on a basis of the number and percent earning \$200 or less and the number and percent earning \$201 and over. Table 30 reflects these data. This approach showed that on the present job (1975), 73.2% were at the \$200 or below level while 26.2% were above \$200, while on the first job the percentages were 96.2% below and 3.8% above. By either approach the salary differences between the first job and the present job (1975) were significantly different at the .001 level. This once again provides evidence that the DE graduate does not stagnate on the job.

TABLE 30
Salaries (First and Present Job)

Based on Frequencies Over and Under \$200

Salary Range	First	Job*	Presen	ıt Job*	
	No.	%	No.	%	
6					1
\$200 & Below	485	96.2	369	73.2	
\$201 & Over	19	3.8	135	26.8	
Total	504		504		

^{*}Percent difference significant at p < .001



Another salary comparison was made among the respondents of the three graduating classes; i.e., 1965, 1968 and 1971. The means, the frequency distribution of earnings and the statistical level of significance is reported in Table 31. Consistent with the previous finding, these data show that DE graduates earn more with the passage of time and are not in a dead-end rut.

TABLE 31

Present Salaries

bу

Year of Graduation

Graduating Year

Category	1965*	1968*	1971"	Total	
\$50 & Under		1 å	2	7 · 3	
\$51-\$100	1	17	35	. ~	
\$101-\$150	13	56	121	53	
\$151-\$200	21	58		190	
\$201-\$250	15	30	56	135	
\$251-\$300	ブ		21	66	
\$301-\$350	0	18	1.2	37	
\$351-\$400	8	6	3	17	
	;	2	3	5	
\$401-\$450	4			4	
\$451-\$500	. 1		1	2	•
Over \$500	1	5	1	7	1
Total	71	193	255	519	/
Mean	\$201.00	\$159.80	\$127.85	\$149.75	N.

^{*} p≺.001

Post-high school training. The attempt to discover the extent to which the graduates continued their DE training, was not too successful. This may be attributed to the structure of the question which assumed that the respondent would either check one of the training approaches or check "none", and so failed to provide a clear picture of how many of the 798 respondents answered this question. The question also failed to take into consideration the fact that it was quite possible to indicate more than one type of training and thus duplicate responses. A third problem was in the interpretation of "other" as a response. The intent was to provide a possible answer dealing with a different type of training but still dealing with DE. Since there were some who answered this

item and listed fields completely unrelated to distribution, it is possible that this interpretation was extended to some of the other items.

The only possible treatment of these data was to assume that all of the 798 respondents answered this item (there were no "blanks" reported), and to use the first box "none" which did not allow for duplication. Table 32 provides the frequencies which make it possible to obtain the percent who did not obtain any type of further DE training. This information shows a increansing number of "none" responses with the more recent graduates. Though these differences are too small to be statistically significant, the trend for partaking of further education with the passage of years, does appear.

TABLE 32
Post-High School DE Training

Graduating Year

i.	1965		1968		1971		7 Total	
Type	No.	%	No.	%	No -	%	No.	%
None	40	35.4	121	41.9	183	46.2	344	
Employer Sponsored	28		45		60		133	
Public Vocational	5		10		12		27	
School School						**		
Private Vocational	. 4	,	6	•	9	•	19	
School		٠.						
College or University	20		47		47		114	
Junior or Community	22		58		61		.141	
College								
Occupational Military	8	,	21		2.2		51	•
Other	13		31		35		79	
Respondents to	113		289		396		798	
Questionnaire		.*					-	

Unavailable for employment. The graduates were asked to indicate their employment status in 1975. They had a choice of three categories, employed full-time, unemployed and seeking work, or unavailable for work. The responses for the first two categories have been detailed in Table 25. There were 150 who had indicated that they were not available for work, this group was asked to give reasons in the next sequential item. There were 173 responses, in this case, denoting that some may have given more than one reason. The reason given most frequently for not being available for work was "homemaking or pregnant". The next most frequent reason given was "further training or college" followed by "military".

TABLE 33
Unavailable for Full-Time Employment

Graduation Year

Reason	1965	1968	1971	Total	
Military	4	6	13	23	
Further Training or College	5	11 -	28	44	
Illness ^a	2	1	2	5	
Homemaking or Pregnant	17,	39 .	31	87	
Not Interested	1	•	1	ງ	·
Other	3	2	7	12	
Total	32	59	82	173	

^aIn addition to these, five were reported by their families as deceased .

Employment length. The average length of the first job was 20.8 months with a range from 1 to 120 months, while the average for the present job was 31.0 with the same range. There were a number whose present job was the same as the first job. The number of jobs held since graduation averaged 2.6 with a range from 0 to 15. In Table 34 the above data are shown by year of graduation and overall. From this information, it is apparent that something must be wrong in the manner in which the job lengths were reported. In the case of the graduates of 1971, the maximum possible for full time employment four years after graduation was 48 months while for the graduates of 1968 it was 84 months. In both cases respondents reported more than the amount possible. It would appear that work on part-time jobs was being included. Whatever the reasons, these data must be questioned as to their accuracy. The information in this table does reveal within the limits of its accuracy, a consistency in that the respondents out of school the longest were reporting longer periods of employment and more jobs held.



TABLE 34

Length of Full-Time Employment

	First Job (months) ^a		Present Job (months) ^a		Number		
Graduation Year	Mean	Range	Mean	Range	Mean	Range	
1965 1968 1971 Total	23.2 22.9 18.1 20.8	2-72 1-90 1-120 1-120	46.9 35.0 23.5 31.0	1-120 1-96 1-91 1-120	3.2 2.7 2.2 2.6	1-15 1-15 1-10 1-15	<i>y</i>

 $^{\rm a}{\rm Number}$ of months reported, in some cases exceeds the number available since graduation

Job satisfaction. As long as job placement is one of the ic le an essential als of a vocational program, then job satisf pect of evaluation. This information was of an overall and then followed ery about the extent of satisfaction with the .ork. The reinquiries dealing with twelve specific areas ob as shown in onses to the first query dealing with the to Table 35 provide evidence of a high degree of and faction with the present job. On the basis of the data as shown, those who liked their jobs very much and those who liked their jobs somewhat constituted 87.7% of these respondents as against the 5.7% who stated that they disliked the job to some extent. This leaves 6.6% who neither liked nor disliked their jobs. If the group who neither liked nor disliked their job were omitted and the two liking categories and the two dislike categories were combined the percent liking would be 93.9%. In a study by the National Center for Education Statistics (Fetters, 1975, p. 13), conducted as a graduate follow-up of vocational-technical graduates of 1972, one and onehalf years after high school graduation, 80% reported satisfaction with the job as a whole. The percents obtained from the table on job satisfaction for DE graduates in Connecticut compare quite favorable with those on a national level for all vocational programs.





TABLE 35

Present Job Satisfaction

Graduation Year

	19	55	19	68	19	71	To	tal	
Job Reaction	No.	%	No.	%	No.	%	No.	%	
Like Very Much Like Somewhat Neither Like Nor Dislike	57 10 4	79.2 13.9 5.6	130 45	66.3 23.0 5.6	158 (60.5 24.5 7.7	37 T 35	65.2 22.5 6.6	
Disl. 2 Some hat Disl. 2 V fuch Total	, <u>-</u>	0.0	8 2 . 6	1	11 8 61	4.2 3.1	19 11 29	3.6 2.1	

as a whole (93.9%), it was important to conduct an additional analysis to observe whether or not those working in the field or which they were rained or in a closely related field reported greater or lesser satisfaction with their jobs. This analysis was done through a 2 X 2 Chi Square statistical treatment using the dichotomized category of like and dislike, as described in the previous paragraph, and the related and not-related dichotomy. The result was not significant; meaning that those in the field of distribution did not appear to be more or less satisfied with their jobs than those employed in other fields.

	Satisfied	Dissatisfied	Total
7 m 3 m 4 m .1	170		
Related	179	6	185
Unrelated	272	22	.394
Total	451	28	479
		•	

In the analysis of the detailed responses to job satisfaction, the greatest areas of satisfaction were with "co-workers", followed closely by "pace of work", "safety conditions" and "variety of work tasks". Dissatisfaction was shown for "salary", "company policies and practices", "potential for advancement" and "supervision and management", in the order listed. The factors identified as



"not sure" overlapped those identified as "dissatisfied". All the differences were slight and did not indicate any one specific factors of overall satisfaction or dissatisfaction. For instance, "salary had the largest percent of dissatisfaction reported, still only 25.3% indicated they were dissatisfied while 58.8% reported satisfaction with this item.

TABLE 7

Specific Satisfaction or Present Job

Area	Satisfied ^a Percent	Not Sure ^a Percent	Dissatisfied ^a Percent	Number of Responses
Salary	58.8	15.	25,3	522
Finge benefit.	70.5	12.	17,2	518
Potential for dvancement	56.7	23.	19.5	513 .
Supervision & management	64.4	10.	19.0	500
Co-workers	85.5	9.7	4.8	516
Company policies &	59.0	20.1	20.9	517
practices				
Pace (speed) of work	83.5	8.9	7.6	516
Facilities & equipment	78.1	8.5	13.4	517
provided				
Working conditions	79.0	9.8	11.2	520°
·Variety of work tasks	82.1	9.1	8.7	515
Job security	76.1	15.9	8.0	515
Safety conditions	83.1	8.4	8.6	514
t ex				

^aPercent f number of responses

Student suggestions. The last item on the questionnaire provided graduates with an opportunity to make comments or suggestions concerning the DE program. Three hundred and twenty-five (325) respondents took advantage of this opportunity to express their own reactions in their own terms. The DE state supervisor and this researcher working together read, analyzed and categorized each comment. The charge posed for this open-ended item was "Provide below any suggestions you may have for the improvement of the DE program." The respondents took this assignment seriously, in some cases filling out the entire available space (a half page) and then continuing to write another half or full page.

The largest number (75) of comments praised the cooperative work-experience program. Following this area of comment, there were 40 responses dealing with curriculum modification. They recommended continuous up-dating of the curriculum and greater diversification. In the latter case it was noted that those working

some special of field of DE, such as advertising, would indicate the continuous of comment dealt with the equipment used in the program. They suggested that equipment be up-dated continuously so as a provide students with the current innovations in the field. The DE teacher-coordinators should be proud of the large number of graduates who took the time to formulate their thoughts and write them out in this questionnaire.

Bloomquist, Wheeler and Nord (1974) also obtained suggestions from the respondents and ranked them in the following order of frequency: "training needs to be more like the real job"; "training should depare for several jobs"; greater variety of classroom activities (field trips etc.)"; "equipment should be in line with that being used in business"; "teachers should know more about what the job is really like"; and "course content needs updating". All but the item dealing with teachers were mentioned in this study though the frequencies and rank order were different.

Conclusion

in considering these findings, caution must be exercised. Though the return was a respectable 48.7% of delivered mail and the total responses fairly large (798), there are possibilities of biased findings. In cases when a sample is used for a survey, there is apt to be a sampling error, however, statistical techniques are available to estimate the limits of the true $|\mathbf{v}_{i}\rangle_{i,j}$ This study was not oling stu but sealt will the total population of a a a therefore did not need such a correction. $\theta_{\rm BR}$ of the areas of concern in this study is in the number of undeliverable letters which could afrect the data dealing with in-state or out-of-state residence and/or employment, by recucing the number of in-state responses. Considering the high in-state responses for residence (90.5%) and employment (87.0%), it is difficult to conceive any appreciable change in the percent staying in-state.

A more serious concern is the number who apparently received the questionnaires but failed to respond. This group may represent the graduates with less favorable responses dealing with quality of program, salary, employment status, and job satisfaction. We are left in the postion of relying on some guess about the size and direction of this bias, without data to substantiate the guess (Cochran, 1963, p. 357). Cochran goes on to classify the non-respondents into four categories: 1) Non-coverage (failure to include an important segment of the population; 2) Not at home (comparable to the undeliverable letters of this study); 3) Unable to answer (respondents may not have the answer to questions); 4) The "hard core" (those who refuse to answer). The second and fourth categories may be applied to this study. Cochran (1960,p. 360) goes on to say "It represents a source of bias that persists no matter how much effort is put into completeness of the returns".

The findings of this study indicate that the DE program is apparently meeting the needs of the students, as they see them.

Lis is a very basic and essential aspect of The State Director of Washington has said " of vocational education ask students" (Binn., February, 1976). The student responses slow a high degree of tically all aspects of the curriculum and is than that reported from the American Freshma Fall 1975 (Education Daily, January 12, 1976 college freshman felt that their high school lot to be desired and that "only 17% were co tional skills".

ny educational program. find out the success tisfaction with pracradically different National Norms for p. 2) finding that reparation "left a ident in their voca-

In addition to meeting the students _mmediate needs, vocational education has as one of its primar oals, the preparation of graduates for the world of work, particularly in the field for which they have been trained. This is the carson d'etre for vocational education. It is here that some of the findings raise questions as to the effectiveness of the DE program. Placement services are obviously a vital aspect of vocational education. John W. Struck, State Director of Vocational Education in Pennsylvania in a Foreword to a "Report of Job Placement Services in Pennsylvania" states "The survey findings indicate there is much room for improvement. at the local education agency level in provious adequate job placepation _ _ am graduaco ment services for _ducational Systan In .tute, 1974 . Considering the high costs of operating and equipping a DE program, this accountability of its effectiveness is essential.

Comparing this study with other studies presents some difficulties, since: the other studies are conducted in a different economic environment often combine DE with other vocational programs and are usually conducted soon after graduation. For the last reason, comparison of the first job in this survey might be more appropriate. In this case, the only available measure of the percent in related fields at the first job was obtained by the ratio of those in a related job as measure against those working; providing a value of 45.2%. Since using the base of those working does not include the others available for work who may have been unemployed at the time of the study, the 45.2% is an optimum percent and would probably be lower if the number available for work was known.

A different picture is obtained of the related placement on the first job for the three classes included in this survey from the follow-ups conducted approximately six months after graduation. These findings are reported by the Connecticut State Department of Education (1965, 1968, 1971). The percents as obtained, in the same order, are 73%, 79% and 83%. The startling difference in the percents as obtained in the years of graduation and that obtained during the 1974-1975 year may be attributable to different versions of relatedness, memory limitations, special characteristics of the responding group or other reasons. There is no question that the original placement record in related occupations was an outstanding one, though the subsequent report was not so good.

Some of the studies dealing with the relatedness of job placement (Bloomquist, Wheeler and Nord, 1974; Furlong, 1974; Domain, 1974; Lee and Fitzgerald, 1965, p. 2; Haines and Ozzello, 1966; Wyoming State Department of Education, 1967) have reported 40% to 62% of those available for work were employed in the field for which they were trained. Oklahoma (Morton, Lyle and Stevenson, 1973, p. 13), in its first year follow-up of 1968 and 1971 DE graduates found that 87% and 80%, respectively, of those available for work were employed in the field. Texas (Advisory Council for Technical-Vocational Education in Texas, April 1976, p. 2) reported that in 1973-1974, 73% of all secondary respondents from all vocational programs stated that they were in the field for which they were prepared. The first-job placement record in Connecticut reported in the original follow-up is outstanding in its effectiveness; though in the subsequent verification with the students, themselves, it did not appear to be so good. Further evidence of the effectiveness of the coordinators efforts in placement is shown in the record for Connecticut DE graduates in 1974, which was 71% placed in the field or related occupations. The questions raised in placement, center in what happens four, seven and ten years later.

The main area of concern, is not the efforts of the teacher-coordinators in placing the graduates in the distribution field, but the failure of that field to hold the placed graduates. This study found that of the 317 placed in the distribution field in 1965, 1968 and 1971, only 202 reported as still being in this field, in 1974-1975 representing a loss of 115 to this field. This is a serious problem in view of the fact that the State Department of Labor indicates 11,800 job openings for 1975 (Connecticut State Department of Education, 1974, Part 2, p. 1). The glaring discrepancy between the needs of the business community and the output of the DE program may be attributable to the failure of the business community to make the occupations attractive to employees, and the inability of business and education to attract more students into a DE program.

This problem is accentuated when the total enrollment in IE is considered, namely, 3,527. If every student left to work in the field of distribution, the job demand for the year would still far exceed the supply of trained workers. This low enrollment seems to be a problem peculiar to Connecticut, in view of the fact that a national study (Lee and Fitzgerald, 1975, p. 8) found that 6.1% of the vocational enrollment was in DE, while only 1.6% were in this area in Connecticut. This problem extends beyond the failure to meet the needs of business; it also indicates a failure to meet the needs of many students who could profit by this program. There is obviously a need for greater effort on the part of business and education to promote the DE program and the distributive occupations.

Another area of concern in dealing with the employment picture of the respondents during the 1974-1975 year was the percent unemployed. The rate of 14.7% unemployed was better than that reported for recent high school graduates but not as good as the overall unemployment rate (8.8%) for this period as issued by the Labor Department for the entire State. The unemployment rate for all

recent secondary vocational graduates for the year 1974-1975 was 15.8% while the rate for recent DE graduates for the same period was 15.2%. This latter comparison may not be as valid as the one to the overall rate, since older and more experienced workers would be expected to have a lower unemployment rate.

Four key variables; employment status, salary, job relatedness and job satisfaction; were tested for statistical significance against the many other variables identified in the questionnaire (Appendix A). The highest statistical difference was found in the salaries between males and females, with the males earning more. Males were also more prone to be employed in the field of distribution. Other observed significant salary differences were higher salaries for respondents, in their current job as against their first job, with more years of work experience and for those in the field of distribution. Finally there was a highly significant difference between the relatedness of the first job and the current job. All other differences were minimal or non-existent.

A study which provided some parallel information to this Connecticut survey was conducted in The School District of Philadelphia by Jeremias (1968). This study of 1966 graduates in comprehensive high schools and area vocational-technical schools of all occupationally titled programs, including industrial arts and home economics, was based on 600 interviews (20% of the graduates). The parallel between this study and the Connecticut study is not in the population studied or in the technique used but in some of the questions asked.

In the Philadelphia survey responses to the question of the greatest influence in selecting the particular course revealed the following in rank order; job opportunities, parents, then teacher. In evaluation of the high school program, the two areas receiving the bighest percent of poor ratings were vocational couseling and assistance in getting a job, with the comprehensive schools receiving the more negative responses.

Graduates' suggestions for improvement of the program, excluding the 221 who offered no suggestion and the 57 whose response was included under "other", were as follows; ninety stated that more and better counselors were needed, forty-two thought there was need for a job placement teacher or counselor, thirty-seven felt that teachers should take a greater interest in the students while thirty-five responded "more individual interest in field student desires" (Jeremias) 1968, p. 26). This study also revealed that 71% of the graduates were employed in the field for which they were trained, only twenty or 4% of those seeking work were unemployed and 84.4% expressed satisfaction with teir job in varying degrees.

Of greatest interest in the Jeremias study is the fact that despite the differences in goals, population and procedures, there are major similarities in the conclusions and recommendations between the Connecticut Philadelphia study. The latter research concludes that there is need to strengthen vocational guidance and that job placement is a neglected area in the comprehensive schools. Jeremias (1968, p. 41) concludes, "While the graduates in this study

appear to be successfully prepared for job entry, their relatively small numbers permit critics of public education to justly complainnot of the quality of vocational education, but, with the exception of business education; of the percentage of the student body to whom such education is not being made available".

Recommendations

Considering the students, assessment of the excellence of the curriculum but the failure of the program to meet the manpower needs of the State and the concomitant failure to serve sufficient students some action should be considered and taken to improve this situation. Some of the findings which are closely related to the recommendations are listed below:

- 1. Though the DE teacher ranked second in being an influential factor in the students' choice of the DE program, 75.2% were influenced by other sources.
- 2. The DE teacher ranked fourth in help for graduate job place-ment.
- 3. Even in the case of part-time placement (training stations) (required for second year students under a cooperative work-experience program), 10.6% rated this service as "poor", and 30.2% said it did not apply.
- 4. Only 27.5% felt that the quality of placement service was "good" or "excellent".
- 5. A significant reduction in graduates employed in the field of distribution after the initial employment.

In view of these findings, the following recommendations are submitted:

- 1. DE teachers should play a more active role in guidance and "recruitment" of students for the DE program.
- 2. "Recruitment" should be objective revealing the advantages and disadvantages of a career in distribution thus enabling the student to choose this program on the basis of an interest in the career and not because the student "needed the credits", "heard it was an easy course", "wanted to get a part-time job" or other reason unrelated to the career objective.
- 3. More emphasis on the training station of the program should be placed by the DE teacher.
- 4. Career information and counseling should be continued through the course.
- 5. More emphasis on graduate placement in the field of distribution must be made.
- .6. To enable the DE teacher to provide more training stations and graduate placement in the field of distribution, closer relations with business should be established.
- 7. More publicity concerning the wealth of opportunities available in this field is needed to help increase the enrollment.
- 8. Graduates should be encouraged to "keep in touch" to facillitate follow-up and perhaps assist the graduate in advancement in the field.
 - 9. The business community concerned with the field of distri-



bution should participate actively in the areas of student recruitment for these programs and should concern itself with the employee turnover.

thas been so common to include recommendations for further arch that it may be considered trite. In this case it appears there is sound justification for the additional studies identified below:

1. An evaluation of the graduates by employers.

2. A comparison of DE graduate persistence in the distribution field with the graduates of other vocational programs in their respective fields.

3. An analysis of the distribution business in terms of its employee advantages, disadvantages, and turnover; including a detailing of possible reasons for turnover.

The above recommendations are being made with full awareness of the difficulties that face the teacher-coordinator. To achieve some of these recommendations, it is necessary to use a team approach involving the DE teacher, couselors, business community, school administrators, the State Supervisor, parents and students. Increasing enrollment to serve more students more effectively means more staff and this involves more money.

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APPENDIX A

Graduate Follow-Up Survey Form

DISTRIBUTIVE EDUCATION IRADUATE FOLLOW-UP SURVEY

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APPENDIX B

First Letter





STATE OF CONNECTICUT

STATE DEPARTMENT OF EDUCATION

Box 2219 - Hartford, Connecticut 06115



Tel. 566-

December 18, 1974

DEAR ALUMNUS ...

You can help current and future students of Distributive Education programs.

How? By spending 10 to 20 minutes in answering the enclosed survey form regarding the effectiveness of Distributive Education.

As a high school graduate who studied Distributive Education, you are in a key position to make judgements and express opinions which will help us improve Distributive Education programs across the state. Therefore, we hope that you will respond to the survey fully, frankly, and promptly. We genuinely need and earnestly seek your views.

The survey is no attempt to pry into your personal life. The data will be kept strictly confidential. Neither you nor any other person answering the questionnaire will be singled out or identified in the survey report or elsewhere.

Enclosed are the questionnaire and a self-addressed, stamped envelope. Please fill out the questionnaire and mail it back to us without delay. By doing so, you will help make Distributive Education more rewarding and meaningful to joung people for many generations to come.

Sincerely,

Herbert Righthand Assistant Director

HR/gkc Enclosure APPENDIX C

Second Follow-Up Letter



STATE OF CONNECTICUT STATE DEPARTMENT OF EDUCATION BOX 2219 - HARTTORD CONNECTICUT 06115



Tel. 566.

DEAR ALUMNUS . . .

We have not yet received your response to our survey. If it has already been mailed, thank you for your cooperation.

If not, may we once more seek your help and request the prompt return of a fully completed survey form.

We want to emphasize that the goal of this study is to evaluate and improve the quality of the Distributive Education programs. We are conducting this study as an overall statistical analysis in order to assess the success of the graduates and to obtain their evaluation of the Distributive Education program. In view of this, all individual information will be confidential.

A questionnaire and a self-addressed stamped envelope is enclosed and we would like to receive a prompt reply.

Thank you for your assistance.

Sincerely,

Herbert Righthand

Assistant Director

HR/gkc Enclosures -44-

APPENDIX D

Third Follow-Up Letter



STATE OF CONNECTICUT

STATE DEPARTMENT OF EDUCATION
BOX 2219 — HARTFORD, CONNECTICUT 06115



566.

DEAR ALUMNUS ...

When you were in Distributive Education in high school, you probably heard about the importance of the "follow-up" in sales work.

Well, we're kind of in somewhat the same position now ourselves.

This is our third letter to you in our follow-up survey of Distributive Education grads of 1965, 1968, and 1971.

Frankly, we hope to sell you on the importance of filling out the enclosed survey form and returning it to us in the enclosed stamped envelope.

Maybe your reason for not sending back the forms sent to you before is, that you're not in a job related to your high school background in Distributive Education. That's O. K. A quick glance through the survey form will show you we're looking for information like that, too.

And over at the end of the form, you'll find a page and a half of blank space where you can let it all hang out on your views on what's right and what's wrong with Distributive Education as you see it from your current situation—no matter what it is.

What you tell us on this score will help us a great deal as we plan Distributive Education for the young people now in such programs and for the young people who will enter D. E. programs in the years ahead.

Please fill out the survey form and drop it in the mail. Without some follow-through from you, our follow-up survey will have an important piece missing.

Sincerely,

Herbert Righthand

A Pac b thand

Assistant Director

